

# **Cisco Identity Service Engine (ISE) Implementation Services Statement of Work**

**In Support of Fleet Numerical  
Meteorology and Oceanography  
Center**

**Monterey, California**

**21 January 2016**

## **1.1 INTRODUCTION**

Fleet Numerical Meteorology and Oceanography Center (FLENUMMETOCCEN) intend to improve its enterprise security footprint by implementing an Identity Service Engine (ISE) system in its high performance computing network.

## **1.2 Background**

The intended purpose of the ISE system once installed is to validate hosts connected to the FLENUMMETOCCEN Scientific LAN (FSL) through access switches Virtual Private Network (VPN) connections. Specifically, ISE will validate against the host's certificate (laptops, VOIP phones, etc.) or its MAC address (printers, etc.). If a host is determined to have a valid FLENUMMETOCCEN certificate or MAC address then that host will be allowed to connect to the network and receive network services (obtain an IP address, log into the network, and otherwise able to access resources). If the host is determined to have an invalid FLENUMMETOCCEN certificate, or a MAC address that is not approved, then the access switchport will be disabled and ISE will email administrators letting them know of the access attempt. The email will contain the time of the incident, access switchport information, and any information gathered from the host.

## **1.3 Environment**

The ISE system will be incorporated in the current FSL network which consists of Windows Active Directory (Dell servers), Lightweight Directory Access Protocol (Linux servers), and Cisco routers and switches. A sample of access switches within the FSL network includes:

- Cisco 6509E running IOS 12.2(33)
- Cisco 4506E-24 running IOS 15.0(2)
- Cisco 7604 running IOS 15.4(3)
- Cisco Nexus 5020 running NX-OS 5.2(1)
- Cisco Nexus 7004

Note that government network administrator will be responsible for upgrading IOS software on any access switches that do not already meet minimum standards for integration with ISE.

## **2.0 OBJECTIVES**

- Provide subject matter expertise towards the planning and implementation of ISE in conjunction with FLENUMMETOCCEN network engineers.
- Install and Configure ISE in conjunction with FLENUMMETOCCEN network engineers.
- Provide training to FLENUMMETOCCEN Engineers relevant to the ISE system on day-to-day operations, troubleshooting, and administration.

## **3.0 SCOPE**

The scope of work will include professional services of a Contractor experienced in Cisco ISE planning, installation and configuration. The Vendor during this engagement will be tasked with completing the following objectives:

- Assistance in configuring existing network hardware to support Identity Service Engine (Maximum 30 Total Cisco Network Access Devices)
- Installation and Integration of Identity Service Engine HA mode

### 3.1 Specific tasks include:

- Identity Service Engine Staging
- Access Layer Network Equipment Staging
- Identity Service Engine Installation
- Access Layer Network Equipment Integration
- Train FLENUMMETOCCEN Administrators on basic and reoccurring ISE administrative tasks

## 4.0 DELIVERABLES AND TIMETABLE

All deliverables must meet industry standards and the requirements set forth in contractual documentation.

A face-to-face or telephonic “kick-off” meeting will be held as soon as possible after contract award with FLENUMMETOCCEN network engineers to discuss requirements and milestones.

Meetings or written reports to provide project updates are expected.

The Government will notify the Contractor at least 24 hours in advance of required meetings.

## 4.1 PROPOSED TECHNICAL SCOPE OF WORK

### 4.1.1 Identity Services Engine hardware and software information:

| Line Number | Item Name       | Description   | Quantity |
|-------------|-----------------|---|----------|
| 1.0         | SNS-3415-K9     | Cisco Small Secure Network Server for ISE, NAC, and ACS | 4        |
| 1.0.1       | SW-3415-K9      | Cisco ISE Software for the SNS-3415-K9                  | 4        |
| 2.0         | L-ISE-BSE-1K-M= | Cisco ISE EndPoint 250/500 Base License                 | 2        |

### 4.1.2 Identity Service Engine – Staging:

Staging the Identity Service Engine prior to final installation allows for a seamless transition to adding ISE to a production network. This methodology allows engineers to ensure functional failover and high availability operation as well as certifies software stability. Vendor will conduct the following tasks while staging the ISE servers.

- Deploy OVA Files
- Completion of Initial Configuration Scripts
- Applying Certificates and High Availability Architecture
- Applying patches and purchased licenses
- LDAP - Active Directory Integration

### 4.1.3 Access Layer Network Equipment – Staging:

Staging the access layer equipment prior to the full integration of dynamic port based security will produce limited down time when transitioning to the full deployment. Vendor shall utilize FLENUMMETOCCEN network administrators to push the validated configuration scripts created to applicable network devices. These scripts will produce the following results:

- Recommend Software Upgrades on Incompatible Network Equipment
- Configuration of SNMP Strings (30 devices)

- Applying 802.1X - Radius templates to Network Equipment (30 devices)
- Applying - Validating the Best Practice configuration
- Adhering to Compliance - Hardening specifications (30 Devices)

#### **4.1.4 Identity Service Engine Installation:**

During the requirements gathering phase of the project Vendor shall identify FLENUMMETOCCEN specific network access policy requirements that will translate into the finalized ISE configuration rules. These rules will be detailed in the planning document. During the closing installation of ISE Vendor shall leverage the planning document to create the production installation of ISE services. This will require Vendor to conduct the following task:

- Configuring Logical Profile Groups (if Profiling Licensing Secured)
- Creating authorization policies to cover wired endpoint network access and validating functionality
- Configuration and Validation of wired MAC Address authentication
- Configuration and Validation of wired Host Certificate authentication

#### **4.1.5 Access Layer Network Equipment - Integration:**

The final implementation phase will surround adding each interface of each network access device to the utilize ISE as the radius server and policy enforcement mechanism. Network Access Devices include both wired and wireless network access. Vendor shall conduct the following tasks:

- Deploy port based configurations (Open Mode) 10 Switches and 3 Routers
- Validate Results and Endpoint Functionality Wired Devices
- Deploy port based configurations (Closed Mode) using 10 Switches
- Validate Results and Endpoint Functionality Wired Devices

### **4.2 Timetable**

Project timetables will be mutually agreed-upon by the Government and Contractor on a per-project basis. The negotiated time frame must conform to or be within the overall period of performance of the contract.

### **4.3 Project Task**

The Contractor shall have the ability to provide on-site services to initiate, plan, execute, manage, monitor, and coordinate the project including:

4.3.1 A project plan to ensure FLENUMMETOCCEN and Contractor deliverables are outlined and agreed upon, to include such things as:

- Requirements gathering and functional specifications
- Information architecture
- Implementation timeline
- Quality assurance and testing

4.3.2 Weekly status updates throughout the project

FLENUMMETOCCEN will ensure that project decisions are made on a timely basis, to preclude negative impact on the project schedule. FLENUMMETOCCEN will review deliverables and acknowledge approval within one business day after receipt. If there are issues to be resolved, both Contractor and FLENUMMETOCCEN will attempt to resolve them within three business days. Delays to this approval time may impact the deliverable dates and cost of the project.

#### 4.4 Performance Objectives

Performance objectives include, but are not limited to:

| Performance Indicators | Quality Assurance Criteria   |
|------------------------|--|
| a) Completeness        | Deliverables will be 100% complete.                                      |
| b) Accuracy            | Deliverables will be 100% accurate.                                      |
| c) Effectiveness       | All deliverables must contribute to the overall success of the contract. |
| d) Timeliness          | All deliverables will be on time and within schedule.                    |
| e) Communication       | Communication is regular, professional, courteous and accurate.          |

#### 4.5 Final Deliverables

All deliverables must be completed and delivered to FLENUMMETOCCEN in a timely fashion, as mutually agreed upon during individual task assignment.

Reports will include, but not be limited to:

- Objectives met, work completed and work outstanding
- Notable achievements
- Risks or constraints impeding progress and recommended solutions
- Status of deliverables/milestones
- Issues and resolutions
- Resources planning/status
- Topics of issues identified by the Government COR
- Description of work plans for the next month

#### 4.6 Format for Final Deliverables

The Contractor shall provide final (written) deliverables as follows:

- 4.6.1 ISE System As-Built Documentation (.doc or docx format)
- 4.6.2 ISE System drawings (Visio format)

- 4.6.3 Cisco User and Administrator Guides (.PDF format)
- 4.6.4 Training material on basic and reoccurring administrative ISE tasks (PowerPoint format)
- 4.6.5 All Cisco software and licensing information and documentation

## **5.0 PRIVACY ACT**

The Contractor shall be responsible for adhering to all aspects of the Privacy Act and is prohibited from removing from the worksite any programs, documentation, or data without the knowledge and written approval of the Technical Point of Contact (TPOC).

FLENUMMETOCCEN information systems are the property of the Government. All deliverables and work products covered under this contract become the property of the Government. The use of any information that is subject to the Privacy Act shall be utilized in complete accordance with all rules of conduct as applicable to Privacy Act Information.

## **6.0 RELEASE OF INFORMATION**

There must be no dissemination or publication, except within and between the Contractor and any subcontractors, of information created under this contract or contained in the reports to be furnished pursuant to this contract without prior written approval of the FLENUMMETOCCEN's TPOC and FLC Norfolk Mechanicsburg Contracting Officer.

## **7.0 KEY PERSONNEL REQUIREMENTS**

The Contractor shall certify they have:

- Cisco Gold Certification Status
- Status in Authorized Technology Provider (ATP) Identity Services Engine Program.

## **8.0 GOVERNMENT FURNISHED RESOURCES**

The government (FLENUMMETOCCEN) will provide reasonable access to FLENUMMETOCCEN knowledge sources throughout the period of the task, including

- The latest briefing presentations, organizational documents, program descriptions, etc.
- Functional and Design Specifications for the new site
- Security requirements and
- Other informational sources as may apply.

## **9.0 FLENUMMETOCCEN Points of Contact:**

### **FLENUMMETOCCEN Technical Point of Contact (TPOC) & Quality Assurance Monitor**

Name: Trenton Hancock  
Agency: FLENUMMETOCCEN  
Telephone Number: 831-656-4092  
E-Mail: trenton.hancock@navy.mil

The TPOC will handle the day-to-day communications with the Contractor and will act as the intermediary between the Contractor and other FLENUMMETOCCEN officials throughout the period of performance of the contract. In conjunction with contracting officials, the TPOC also will have responsibility for acceptance of the Contractor's delivery of services.

The Contracting Officer at FLC Norfolk Mechanicsburg, however, has exclusive authority to provide specific direction and/or make changes to the contract.

## **10.0 PLACE OF PERFORMANCE**

Place of performance will be at a Government facility, Fleet Numerical Meteorology & Oceanography Center (FLENUMMETOCCEN), 7 Grace Hopper Ave, Monterey, CA, and via teleconference as required.

## **11.0 PERIOD OF PERFORMANCE**

The Government anticipates the initial Period of Performance (POP) to be no greater than Date of Award through six months. The initial kick-off meeting will be held within 14 days of contract award.

## **12.0 TRAVEL**

Travel is not anticipated for this requirement.

## **13.0 SECURITY - UNCLASSIFIED**

### **Security Clearances:**

The Contractor shall require approved background investigations to accomplish its support to FLENUMMETOCCEN. **Contractor personnel will be required to have the appropriate level of investigation and/or security clearance (Secret), at the time the contract is awarded, for each selected site and information system.** The Contractor may be required to have access to live data and/or sensitive information and resources during performance of this requirement. To that end, the contractor is required to sign a non-disclosure agreement provided with the solicitation. The Contractor shall observe and comply with the security provisions in effect at each selected site. Any required identification badges will be worn and displayed at all times.

## **14.0 VENDOR CISCO CERTIFICATIONS – HARDWARE / SOFTWARE**

Vendor shall certify that it is a Cisco Authorized Technology Provider (ATP) for Identity Services Engine as of the date of the submission of their offer, and that it has the Gold level of certification/specialization required by Cisco to support the installation and implementation of Cisco Identity Services Engine.